PCT/09 #4

CRF Errors Corrected by the STIC Systems Branch

Serial Number: 09/8[redacted],160

CRF Processing Date: 5/8/2001

Edited by:

Verified by: _____ (STIC staff)

ENTERED

☐ Changed a file from non-ASCII to ASCII

☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.

☐ Edited a format error in the Current Application Data section, specifically:

_____

☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____.

☐ Added the mandatory heading and subheadings for "Current Application Data".

☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically:

_____

☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:

_____

☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

_____

☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

☐ Inserted colons after headings/subheadings. Headings edited included:

_____

☐ Deleted extra, invalid, headings used by an applicant, specifically:

_____

☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____.

☐ Inserted mandatory headings, specifically: _____

☐ Corrected an obvious error in the response, specifically:

_____

☐ Edited identifiers where upper case is used but lower case is required, or vice versa.

☐ Corrected an error in the Number of Sequences field, specifically:

_____

☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____

☑ Other: Seqs 2,9 - aligned amino acid nos.

_____

_____

_____

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

RAW SEQUENCE LISTING DATE: 05/08/2001
PATENT APPLICATION: US/09/830,160 TIME: 12:24:53

Input Set : A:\49849.txt
Output Set: N:\CRF3\05082001\I830160.raw

Does Not Comply
Corrected Diskette Needed

```
      4 <110> APPLICANT: YLIHONKO, Kristiina
      5       TORKKELL, Sirke
      6       PALMU, Kaisa
      7       HAKALA, Juha
      9 <120> TITLE OF INVENTION: GENE CLUSTER INVOLVED IN NOGALAMYCIN BIOSYNTHESIS,
     10       AND ITS USE IN PRODUCTION OF HYBRID ANTIBIOTICS
     12 <130> FILE REFERENCE: 1574/49849
C--> 14 <140> CURRENT APPLICATION NUMBER: US/09/830,160
C--> 14 <141> CURRENT FILING DATE: 2001-04-23
     14 <150> PRIOR APPLICATION NUMBER: PCT/FI99/00870
     15 <151> PRIOR FILING DATE: 1999-10-20
     17 <160> NUMBER OF SEQ ID NOS: 18
     19 <170> SOFTWARE: PatentIn version 3.0
```

ERRORED SEQUENCES

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    575 <210> SEQ ID NO: 2
    576 <211> LENGTH: 342
    577 <212> TYPE: PRT
    578 <213> ORGANISM: Streptomyces nogalater ATCC 27451
    580 <220> FEATURE:
    581 <223> OTHER INFORMATION: "translate of snogI, function: aminotransferase"
    583 <400> SEQUENCE: 2
    585 Met Thr Val His Val Trp Asp Tyr Leu Pro Glu Tyr Glu Leu Glu Arg
    586 1               5                  10                  15
    588 Glu Asp Ile His Asp Ala Val Glu Thr Val Phe Arg Ser Gly Arg Leu
E--> 589   ~~20~~ 20          ~~25~~ 25          ~~30~~ 30
    591 Val Leu Gly Glu Ser Val Arg Gly Phe Glu Ser Glu Phe Ala Ser Phe
E--> 592        35                  40                  45
    594 Gln Gly Val Gly His Ala Val Gly Val Asp Asn Gly Thr Asn Ala Val
E--> 595    50                  55                  60
    597 Lys Leu Gly Leu Gln Ala Leu Gly Val Gly Pro Gly Asp Glu Val Val
E--> 598 65                  70                  75                  80
    600 Thr Val Ser Asn Thr Ala Ala Pro Thr Val Val Ala Ile Asp Ser Ala
E--> 601                85                  90                  95
    603 Gly Ala Thr Pro Val Phe Val Asp Val Arg Glu Glu Asp Tyr Leu Met
E--> 604            100                 105                 110
    606 Asp Thr Ser Gln Val Glu Ala Val Leu Thr Pro Arg Thr Arg Cys Leu
E--> 607        115                 120                 125
    609 Leu Pro Val His Leu Tyr Gly Gln Cys Val Asp Met Ala Pro Leu Arg
E--> 610    130                 135                 140
    612 Asp Leu Ala Ala Arg His Asn Leu Val Ile Leu Glu Asp Cys Ala Gln
E--> 613 145                 150                 155                 160
    615 Ala His Gly Ala Arg Arg His Gly Arg Leu Ala Gly Ser Thr Gly Asp
E--> 616                165                 170                 175
    618 Ala Ala Ala Phe Ser Phe Tyr Pro Thr Lys Val Leu Gly Ala Tyr Gly
```

misabgned nos.

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```
E--> 619              180                 185                 190
     621 Asp Gly Gly Ala Val Leu Thr Asp Asp Glu Arg Val Ala Asp Arg Leu
E--> 622          195                 200                 205
     624 Arg Arg Leu Arg Tyr Tyr Gly Met Glu Ser Arg Tyr Tyr Val Val Glu
E--> 625      210                 215                 220
     627 Thr Pro Gly His Asn Ser Arg Leu Asp Glu Val Gln Ala Glu Ile Leu
E--> 628 225                 230                 235                 240
     630 Arg Arg Lys Leu Ser Arg Leu Pro Ser Tyr Ile Glu Ala Arg Arg Ala
E--> 631                 245                 250                 255
     633 Val Ala Arg Arg Tyr Glu Glu Gly Leu Ala Asp Thr Gly Leu Leu Leu
E--> 634              260                 265                 270
     636 Pro Arg Thr Ala Gln Gly Asn Glu His Val Tyr Tyr Val Tyr Val Val
E--> 637          275                 280                 285
     639 Arg His Pro Arg Arg Asp Ala Val Leu Glu Ala Leu Arg Ala Ser Tyr
E--> 640      290                 295                 300
     642 Asp Ile Ala Leu Asn Ile Ser Tyr Pro Trp Pro Val His Thr Met Thr
E--> 643 305                 310                 315                 320
     645 Gly Phe Ser His Leu Gly Tyr Ala Lys Gly Ser Leu Pro Val Thr Glu
E--> 646                 325                 330                 335
     648 Ala Leu Ala Asp Glu Ile
E--> 649              340
     1091 <210> SEQ ID NO: 9
     1092 <211> LENGTH: 350
     1093 <212> TYPE: PRT
     1094 <213> ORGANISM: Streptomyces nogalater ATCC 27451
     1096 <220> FEATURE:
     1097 <223> OTHER INFORMATION: "translate of snogK, function: dTDP-glucose-4,6-dehydratase"
     1099 <400> SEQUENCE: 9
     1101 Met Ala Ser His Thr Ser Ala Thr Thr Asp Val Asn Ile Leu Val Thr
     1102 1               5                   10                  15
     1104 Gly Ala Val Gly Phe Ile Gly Ser Ala Tyr Val Arg Met Leu Leu Glu
E--> 1105         20                  25                  30
     1107 Asn Arg Ala Pro Gly Ala Gly Ala Pro Ala Val Arg Val Thr Val Leu
E--> 1108         35                  40                  45
     1110 Asp Lys Leu Thr Tyr Ala Gly Asn Leu Thr Asn Leu Asp Ala Val Arg
E--> 1111     50                  55                  60
     1113 Gly Asp Arg Leu Arg Phe Val Arg Gly Asp Ile Leu Asp Ala Glu Leu
E--> 1114 65                  70                  75                  80
     1116 Val Asp Glu Leu Met Ala His Ser Asp Gln Val Val His Phe Ala Ala
E--> 1117                 85                  90                  95
     1119 Glu Ser His Val Asp Arg Ser Ile Arg Ala Ala Asp Asp Phe Val Leu
E--> 1120             100                 105                 110
     1122 Thr Asn Val Val Gly Thr Gln Arg Leu Leu Asp Ala Ala Leu Arg His
E--> 1123         115                 120                 125
     1125 Gly Val Glu Pro Phe Val Leu Val Ser Thr Asp Glu Val Tyr Gly Ser
E--> 1126     130                 135                 140
     1128 Ile Ala Ser Gly Ser Trp Pro Glu Glu His Pro Leu Ser Pro Asn Ser
E--> 1129 145                 150                 155                 160
     1131 Pro Tyr Ala Ala Ser Lys Ala Ser Ala Asp Leu Met Ala Phe Ala Cys
```

same error

RAW SEQUENCE LISTING DATE: 05/08/2001
PATENT APPLICATION: US/09/830,160 TIME: 12:24:53

Input Set : A:\49849.txt
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```
E--> 1132                 165                 170                 175
     1134 His Arg Thr His Gly Leu Asp Val Arg Val Thr Arg Cys Ser Asn Asn
E--> 1135             180                 185                 190
     1137 Tyr Gly Pro Arg Gln His Pro Glu Lys Leu Ile Pro Arg Phe Val Thr
E--> 1138         195                 200                 205
     1140 Asn Leu Leu Asp Gly Leu Pro Val Pro Leu Tyr Gly Asp Gly Arg Asn
E--> 1141     210                 215                 220
     1143 Val Arg Glu Trp Leu His Val Glu Asp His Cys Arg Gly Val Asp Leu
E--> 1144 225                 230                 235                 240
     1146 Val Arg Thr Ala Gly Arg Pro Gly Gly Val Tyr His Ile Gly Gly Gly
E--> 1147                 245                 250                 255
     1149 Arg Glu Leu Ser Asn Arg Glu Leu Val Gly Met Leu Leu Glu Leu Cys
E--> 1150             260                 265                 270
     1152 Gly Ala Asp Trp Ser Ser Val Arg His Val Pro Asp Arg Lys Gly His
E--> 1153         275                 280                 285
     1155 Asp Leu Arg Tyr Ser Leu Asp Trp Gly Arg Ala Arg Glu Glu Leu Gly
E--> 1156     290                 295                 300
     1158 Tyr Arg Pro Ala Arg Glu Phe Ser Ser Gly Leu Arg Ser Thr Val Gln
E--> 1159 305                 310                 315                 320
     1161 Trp Tyr Arg Glu Asn Arg Ser Trp Trp Glu Pro Leu Lys Arg Gly Val
E--> 1162                 325                 330                 335
     1164 Thr Ala Pro Gly Gly Thr Ser Thr Val Val Pro Gly Val Arg
E--> 1165             340                 345                 350
```

VERIFICATION SUMMARY DATE: 05/08/2001
PATENT APPLICATION: US/09/830,160 TIME: 12:24:54

Input Set : A:\49849.txt
Output Set: N:\CRF3\05082001\I830160.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application No
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:481 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:483 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:589 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2
M:332 Repeated in SeqNo=2
L:1105 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:9
M:332 Repeated in SeqNo=9